

WHAT IS CLAIMED IS:

1. An isolated or synthetic DNA which encodes a protein selected from the group consisting of:

- 5 (i) a protein which includes an amino acid sequence corresponding to residues 27 to 102 of the sequence shown in (SEQ ID NO: 1);
- (ii) a homologue of (i);
- (iii) a variant of (i); and
- (iv) a protein isolated from the family *Proteaceae* which specifically reacts with antibodies raised against (i) and which has essentially the same anti-microbial activity as (i).

10 2. DNA according to claim 1 comprising nucleotides 148 to 375 of SEQ ID NO: 2.

15 3. A DNA according to claim 1 which encodes a variant comprising residues 27 to 102 of SEQ ID NO: 1 with the following amino acid substitutions or any combination thereof:

K for Q at position 54 (SEQ ID NO: 15)

20 K for Q at position 65 (SEQ ID NO: 16)

K for Q at position 72 (SEQ ID NO: 17)

V for H at position 80 (SEQ ID NO: 18)

25 K for H at position 80 (SEQ ID NO: 19)

4. A DNA according to claim 1 which encodes a variant having an amino acid sequence selected from the sequence of SEQ ID NO: 20 or SEQ ID NO: 21.

5. A DNA construct which includes a DNA according to claim 1 operatively linked to elements for the expression of said encoded protein.

6. Construct according to claim 5, wherein said DNA includes nucleotides 70 to 375 of SEQ ID NO: 2.

25 7. Construct according to claim 5 which is selected from the group consisting of pPCV91-MiAMP1 and pET-MiAMP1.

8. A host cell harbouring a DNA construct according to claim 5.

9. Host cell according to claim 8 which is selected from the group consisting of a bacterial cell, a fungal cell, an insect cell, a plant cell, and a mammalian cell.

30 10. A transgenic plant harboring a DNA construct according to claim 5.

11. Transgenic plant according to claim 10 which is a monocot or a dicot.

12. Transgenic plant according to claim 11 which is selected from the group consisting of grains, forage crops, fruits, vegetables, oil seed crops, palms, forestry, and vines.

13. Transgenic plant according to claim 11 which is selected from the group consisting of maize, banana, peanut, field pea, sunflower, tomato, canola, tobacco, wheat, barley, oats, potato, soybeans, cotton, carnation, sorghum, lupin and rice.

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14. Reproductive material of a transgenic plant harboring a DNA which encodes a protein operably linked to elements for expression of said protein, said protein selected from the group consisting of:

- (i) a protein which includes an amino acid sequence corresponding to residues 10 27 to 102 of the sequence shown in (SEQ ID NO: 1);
- (ii) a homologue of (i);
- (iii) a variant of (i); and
- (iv) a protein isolated from the family *Proteaceae* which specifically reacts with antibodies raised against (i) and which has essentially the same anti-microbial activity as (i).

15. Reproductive material according to claim 14 which is selected from the group consisting of seeds, progeny plants and clonal material.

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